

XVI.—*A Visit to a Nesting Colony of the Straw-necked Ibis.*

By D. LE SOUËF, C.M.Z.S. (Melbourne).

THE Straw-necked Ibis (*Carphibis spinicollis*) is found all over Australia, according to the season, while it frequently congregates in vast numbers, for the purpose of nesting, in some locality where there has been a sufficiently abundant rainfall and where food is plentiful.

The colony of this Ibis which I propose to describe is situated on the plains in the Riverina district, New South Wales, where a large swamp of about 600 acres has this year [1900] been filled with rain-water to the depth of 3 feet for the first time since 1894. In 1896 this swamp was partly full, and large numbers of Ibises came to breed upon it, but about a fortnight after the eggs were laid—the water in the meantime having dried up very rapidly—all the birds suddenly deserted their nests and left the district, while in two days' time every egg had been eaten by Ravens (*Corvus australis*). The birds evidently changed their quarters on account of the disappearance of the water, and also probably on account of the failure of their food-supply, as the season was not very favourable. This year the swamp is quite full, and, after careful computation, I should estimate the number of Ibises on it at somewhere about 200,000, more likely above than below that estimate. It is curious how these birds affect certain localities, while others that seem to be equally suitable are untenanted; but they evidently prefer breeding in company, and have apparently winged their way from all over the colony to this favoured spot, where probably most of them had been hatched and reared. In dry seasons, moreover, not a single individual seems to be found anywhere in the district, but directly there is an abundant rainfall thousands arrive.

The swamp (see fig. 18, p. 186) is more or less covered with dense lignum bushes, which the birds break and tread down until they form a kind of platform from 6 to 18 inches above the water. Then they build twig-nests about 2 inches deep and 6 inches in diameter on the lignum. A few of the

Fig. 18.



Breeding-swamp of the Straw-necked Ibis.

ests have a lining composed of a yellow-flowered annual which grows on the plains, though the bulk have none. Thirty of these structures are frequently to be seen on one bush, while others that are smaller hold only from three to a dozen nests. Many of the birds began to breed on September 8th this year, having arrived in various-sized companies, each of which seemed to choose a bush of suitable dimensions. After due preparation they built their nests and began to lay about the same day, consequently all those on one bush, with few exceptions, contained the same number of eggs. Now as this species is gregarious, and always lives in parties of variable size, it is probable that the supposition that each flock as it arrives builds in company is correct, the birds composing it being known, as it were, to each other; consequently the vast assembly is divided up into small detached sections of from three to thirty pairs.

From the outskirts of the swamp only a few birds can be seen; and those above the bushes in the centre; but the noise from such a vast concourse closely resembles that of heavy surf beating on a shore, and would be most puzzling if its cause was not apparent. The beaks of the birds are very strong, and it is surprising what tough green twigs they manage to break off in order to build their nests. By far the greater part of these contain three eggs, but many have four, and a few of them five.

One might naturally wonder how such a vast number of birds could find sufficient food on the surrounding plains, especially when the young have to be provided for; but in a favourable season dark-coloured caterpillars, which do great damage to the herbage, are generally to be found in immense numbers among the grass and weeds during the months of August and September. At this period the various companies of Ibises hunt systematically over the flats, eating the caterpillars, and turning over clods of earth, stones, or the like, in the hope of finding some luckless centipede, beetle, or other insect beneath them. Later, in October and November, when the young are hatched, millions of grasshoppers are hatched also, which afford abundant food for the growing

Fig. 19.



Nests and Eggs of the Straw-necked Ibis.

appetite of the nestlings ; and since there are probably more than 200,000 mouths to fill, some little idea can be formed of the immense utility of these birds in destroying that settler's scourge, the grasshopper or locust.

Hatching takes place in the order in which the eggs are laid, that is every other day, so that in nests on the same bush there may be noticed one young bird and two eggs, or two young and one egg, as the case may be (see fig. 19, p. 188) ; the little things grow very rapidly, and the down with which they are covered is black. For the first few days they seem to have the curious habit of waving their heads from side to side, as all those seen were doing so. The parents feed them with partially digested food, and it is an interesting sight to see the various companies of adults going to and returning from some favourite feeding-ground, the male and female birds relieving each other in the duty. Occasionally a flock will soar to a great height before leaving, and can just be seen with the naked eye as the individuals circle aloft in the clear azure sky. When the young are about a week old they are able to move freely upon the platform on which their nests are built, and if disturbed, all huddle up on the far side, whence they readily take to the water and swim to a neighbouring bush. It is most astonishing to see how they climb and scramble through the tough lignum, freely using their wings, beak, and claws for those purposes, while they either put the beak over some higher branch to help themselves up, or catch hold of a bough with it for the same object. How the parents can find their own young when they are mixed up with hundreds of others, I cannot say.

The nestlings are easily reared in captivity if taken when nearly fledged, and soon become very tame and tractable. The amount of food the adults and young consume must be immense, as the contents of an average stomach were found to be 2410 young grasshoppers, several caterpillars, five freshwater snails, and nine little pieces of gravel, as well as a few small bones, weighing in all  $4\frac{1}{2}$  oz. Thus the stomachs of 200,000 adult birds would contain about 482,000,000 young grasshoppers, besides a large number of caterpillars,

snails, and so forth, the total weight being estimated at 25 tons. When, moreover, the contents of the bulky crops of the young are also considered, the amount will be greatly increased. Of course, as the grasshoppers or locusts grow larger, a smaller number becomes necessary. Like the caterpillars, these insects are a well-known scourge, and devour huge quantities of green food; the freshwater snails also are frequently the hosts of the liver-fluke.

XVII.—*Ornithological Notes from the Transvaal.*

By ALWIN C. HAAGNER.

I HAVE NOW the pleasure of offering to the readers of 'The Ibis' a few additional notes on the birds of this part of the Colony of Transvaal. \*

1. PYROMELANA ORYX. (Orange Bishop-bird.)

The nest of this species is woven of strips of the leaves of reeds and grasses, and is lined with the flowering heads of the latter. It is suspended between two reeds (sometimes three) growing in the vicinity of water or in damp places. When such fail the nest is placed among the rank weeds so abundant in many spots. On one occasion I found it on a wild plum-tree. The shape of the nest is oval, with the aperture at the side near the top. Eggs three or four in number, and of a beautiful blue-green colour. When blown they often shew a lovely pure light-blue tint. Axis  $\frac{1}{16}''$  to  $\frac{3}{4}''$ , diam.  $\frac{1}{2}''$ .

In the year 1898 I did not find a single nest containing more than three eggs. This may perhaps be accounted for by the scarcity of food, but I think that it is the usual number. Building commenced in September and October in 1897. In 1898, probably owing to the length and severity of the winter, the birds only began late in November. In 1899 they started in October, as also in this year (1900).

These birds congregate in large flocks among the reeds and cultivated lands, doing much damage to the latter.

\* [For previous notes, see 'Ibis,' 1901, p. 15.—*EDD.*]